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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/588,726 | HUNT ET AL. | |
| | Examiner | Art Unit | |
| | ADNAN BAIG | 2461 | |

***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *30 December 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *39,42-44,48-52 and 54-69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *39,42-44,48-52 and 54-69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 39, 42-44, 48-52, and 54-69 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 39, 42-44, 48-52, and 54-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (USP 5,878,224) in view of Margulis et al. USP (6,243,449), and further in view of Snape USP (6,870,922).

Regarding Claim 39, Smith discloses an adaptive overload control method for a communications network comprising a plurality of network access points and one or more network access controllers, wherein the amount of traffic offered to the communications network via the plurality of network access points is controlled by said one or more network access controllers, thereby enabling said one or more network access controllers to externally control the amount of traffic processed by regulating the rate of said offered traffic, the method comprising:

offering traffic to a said network access controller (**see Fig. 4**) via a plurality of said network access points **(see Fig. 2, 206a-206b) & Col. 3 line 49 – Col. 4 lines 1-24 e.g., local distributions 206a-b initiates transactions to server 200 which include an overload controller for establishing a video session setup (e.g., traffic))**

wherein said network access controller determines if an overload condition exists (**see Fig. 4, 410 & Col. 5 lines 4-10**) and if so,

generating at least one global traffic constraint information (**see Col. 5 lines 29-36**) to restrict the rate at which a network access point admits said traffic to the communications network (**see Col. 13 lines 6-36 e.g., the admission factor or the adapted gap interval can be calculated by the source (e.g., access point) or the server (e.g., controller). Furthermore the source (access point) calculates its new gap interval (e.g., per-line gap interval) based on its input transaction rate λ (e.g., estimate of current rate per line). See Col. 4 lines 61-67 e.g., aggregate offered traffic is determined by controller 500 for determining the reduction rate)**

communicating said at least one global traffic constraint to one or more of said plurality of network access points, (**see Col. 5 lines 4-36)**

(Referring to **Col. 5 lines 4-29**, Smith discloses the controller located in a network server establishes a target incoming workload by computing the offered load of sources (**e.g., aggregate offered traffic rate from plurality of access points**) from measurements of arriving messages.

and at each respective network access point receiving said at least one global traffic constraint, processing the received global traffic constraint to determine local gap interval constraint conditions for the respective network access point by determining a local call gap interval ($\Delta t$) to be imposed on traffic received by said respective network access point (**see Col. 5 lines 4-37 e.g., reduce transaction rate based on traffic rate & Col. 5 lines 35-36, i.e., update (processing) & Col. 13 lines 5-15 e.g., generate a local call gap interval ($\Delta t$), Col. 2 lines 3-15**)

Smith does not expressly disclose determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval ($\Delta t$), wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval ($\Delta t$), for said respective network access point. However the limitation would be rendered obvious in view of the teachings of Margulis et al. USP (6,243,449).

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval ($\Delta t$), (**see Col. 6 lines 15-24 e.g., randomizing the first gap time as initial ($\Delta t0$), & Col. 5 lines 55-65 e.g., subsequent gap time ($\Delta t$)**)

wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval ($\Delta t$), for said respective network access point, (**see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap, subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval ($\Delta t0$) is determined independently be each switch**)

(**Referring to (Col. 6 lines 17-24), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (*i.e., avoid***

***synchronized access attempts at the end of gapping period*). Furthermore the initial gap time is standard which is applied prior to receiving traffic for throttling the number of calls to the TN in order to avoid network congestion, see Col. 5 lines 47-55**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for implementing determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval ($\Delta t$), wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval ($\Delta t$), for said respective network access point as disclosed by Margulis within the teachings of Smith, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Margulis further discloses in (**Col. 5 lines 55-60**), "*after a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message into a call gap timer created for the TN and blocks <u>all calls</u> it receives which are destined to this TN*".

Based on the teachings of Margulis, it is implied that the initial local gap interval ($\Delta t0$) is applied before another call arrives at the switch, however Margulis does not clearly disclose applying said initial local gap interval ($\Delta t0$) before another call arrives at said

respective network access point. However the limitation would be rendered obvious in view of the teachings of Snape USP (6,870,922).

Snape discloses applying a call-gap operation before another call arrives at said respective network access point, (**see Fig. 2 & Col. 3 lines 10-16 & lines 16-30 e.g., the more efficient implementation of the present invention thereby causes execution of the call-gap operation in the call control function (CCF) before the call is passed to the service switching function (SSF) (e.g., gap operation applied before call arrives at respective network access point)**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for implementing the call gap operation of Snape who discloses applying a gap interval before the call is passed to a network access point, as the initial local gap interval ($\Delta t0$) of Smith in view of Margulis, because the teaching lies in Snape that technique is a more efficient implementation of call gapping.

Regarding Claim 42, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein the network access controller analyzes the rate at which traffic is rejected by the network access controller to determine said at *least* one global traffic constraint, (**Smith. See Col. 4 lines 15-24)**

Regarding Claim 43, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein the network access controller determines if an overload condition exists at the network access controller from a reject rate comprising a rate at which the traffic offered by all of said plurality of network access points to said network access controller is rejected, and wherein said at least one global constraint is derived from the reject rate, (**Smith**, **see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Regarding Claim 44, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller, (**Smith, see Col. 7 lines 55-60**)

Regarding Claim 48, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein in said step of communicating said at least one global traffic constraint to one or more of said plurality of network access points, said global traffic constraint is multicast to one or more of said plurality of network access points, (**Smith, see Col. 5 lines 29-36)**

Regarding Claim 49, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein the initial gap interval ($\Delta t0$) (**Margulis, see Col. 5 lines 47-55**) is determined at each network access point using a random or pseudo-random technique. (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**)

Regarding Claim 50, the combination of Smith in view of Margulis, and further in view of Snape, disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller (**Smith, see Col. 7 lines 55-60**), wherein said communications network is a VoIP network, and said traffic comprises call-related traffic, (**Smith, see Col. 4 lines 7-40**)

Regarding Claim 51, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein the controller determines said at least one global traffic constraint by analyzing the rate at which off-hook messages are rejected by the access controller and wherein said network access controller is a Media Gateway Controller and each of said plurality of network access points comprises a Media Gateway, (**Smith, see Col. 4 lines 15-24)**)

Regarding Claim 52, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein a global traffic rate constraint is determined by said network access controller for an address, (**Margulis, see Col. 3 lines 45-64 each TN contains an address)**

Regarding Claim 54, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein a dial-plan is implemented by a network access point to make it unnecessary to send an off-hook condition message to the network access controller when a local gap interval ($\Delta t$), constraint is being imposed. (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 55, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein each network access point determines the initial gap interval ($\Delta t0$), using a probabilistic method, (**Margulis, see Col. 6 lines 15-25**)

Regarding Claim 56, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 39, wherein the initial gap interval ($\Delta t0$), if not zero, is determined by each network access point such that all of the network access points' initial gap intervals ($\Delta t0$), are uniformly distributed in the range from zero

to the local gap interval ($\Delta t$), determined by each network access point, (**Margulis, see Col. 5 lines 47-55**)

Regarding Claim 57, Smith discloses a method of controlling the number of calls received by a media gateway controller for admittance to a communications network, the media gateway controller being arranged to be connected to a plurality of media gateways, wherein the amount of traffic offered to the communications network via said media gateways under the control of said media gateway controller, thereby enabling said controller to externally control the amount of traffic processed by regulating the rate of said offered traffic, the method comprising:

Offering traffic to a said controller via a plurality of gateways, **(see Fig. 2, 206a-206b) & Col. 3 line 49 – Col. 4 lines 1-24 e.g., local distributions 206a-b initiates transactions to server 200 which include an overload controller for establishing a video session setup (e.g., traffic))**

determining at the controller if an overload condition exists (**see Fig. 4, 410 & Col. 5 lines 4-10**) and if so

generating at least one scalable call rate control parameter (**see Col. 5 lines 29-36**) to restrict the rate at which a gateway offers traffic to the network, (**see Fig. 6, Col. 5 lines**

**4-15 & Col. 4 lines 15-24**) (**see Col. 13 lines 6-36 e.g., the admission factor or the adapted gap interval can be calculated by the source (e.g., access point) or the server (e.g., controller). Furthermore the source (access point) calculates its new gap interval (e.g., per-line gap interval) based on its input transaction rate λ (e.g., estimate of current rate per line). See Col. 4 lines 61-67 e.g., aggregate offered traffic is determined by controller 500 for determining the reduction rate)**

the media gateway controller multicasting the scalable rate control parameters to each media gateway within the domain of control of the media gateway controller, (**see Fig. 2, Col. 4 lines 15-24 & Col. 5 lines 29-36)**

at each respective media gateway, receiving said scalable rate control parameters (**see Col. 5 lines 29-36**)

scaling the call rate control parameter to determine a scaled call rate control parameter at the respective media gateway, (**see Col. 5 lines 35-36**), wherein the scaled call rate control parameter comprises a call gap interval ($\Delta t$), to be imposed by the respective media gateway on calls seeking admittance to the communications network (**see Fig. 1, Col. 13 lines 5-9 & Col. 2 lines 7-15**)

Smith does not expressly disclose determining an initial local gap interval (Δt0) which differs from the determined local gap interval (Δt), wherein each initial local gap interval (Δt0) is determined independently by each respective gateway to be between zero and the local gap interval (Δt), for said respective gateway. However the limitation would be rendered obvious in view of the teachings of Margulis et al. USP (6,243,449).

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

determining an initial local gap interval (Δt0) which differs from the determined local gap interval (Δt), (**see Col. 6 lines 15-24 e.g., randomizing the first gap time as initial (Δt0), & Col. 5 lines 55-65 e.g., subsequent gap time (Δt)**)

wherein each initial local gap interval (Δt0) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval (Δt), for said respective network access point, (**see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap,**

**subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval (∆t0) is determined independently be each switch**)

(**Referring to (Col. 6 lines 17-24), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (*i.e., avoid synchronized access attempts at the end of gapping period*). Furthermore the initial gap time is standard which is applied prior to receiving traffic for throttling the number of calls to the TN in order to avoid network congestion, see Col. 5 lines 47-55**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for determining an initial local gap interval (∆t0) which differs from the determined local gap interval (∆t), wherein each initial local gap interval (∆t0) is determined independently by each respective gateway to be between zero and the local gap interval (∆t), for said respective gateway as disclosed by Margulis within the teachings of Smith, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Margulis further discloses in (**Col. 5 lines 55-60**), "*after a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message into a*

*call gap timer created for the TN and blocks* *<u>all calls</u>* *it receives which are destined to this TN*".

Based on the teachings of Margulis, it is implied that the initial local gap interval (Δt0) is applied before another call arrives at the switch, however Margulis does not clearly disclose applying said initial local gap interval (Δt0) before another call arrives at said respective network access point. However the limitation would be rendered obvious in view of the teachings of Snape USP (6,870,922).

Snape discloses applying a call-gap operation before another call arrives at said respective network access point, (**see Fig. 2 & Col. 3 lines 10-16 & lines 16-30 e.g., the more efficient implementation of the present invention thereby causes execution of the call-gap operation in the call control function (CCF) before the call is passed to the service switching function (SSF) (e.g., gap operation applied before call arrives at respective network access point)**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for implementing the call gap operation of Snape who discloses applying a gap interval before the call is passed to a network access point, as the initial local gap interval (Δt0) of Smith in view of Margulis, because the teaching lies in Snape that technique is a more efficient implementation of call gapping.

Regarding Claim 58, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein the initial local gap interval ($\Delta t0$) is initially active for a finite sub-set of said plurality of media gateways. (**Margulis, see Col. 5 lines 47-55**)

Regarding Claim 59, the combination of Smith in view of Margulis, and further in view of Snape disclose the a method as claimed in claim 57, wherein the initial gap interval ($\Delta t0$) **(see Col. 5 lines 52-58**) is determined using a random or pseudo-random technique. (**Smith, see Col. 12 line 64 – Col. 13 line 1-4**).

Regarding Claim 60, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein at least one of said scalable call rate control parameters is assigned to a predetermined called address, (**Margulis, see Col. 3 lines 45-64 each TN contains an address)**

Regarding Claim 61, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein a dial-plan is imposed by the media gateway controller on the media gateway to determine the control treatment applied to at least part of a called address, (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 62, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein the media gateway analyzes at least a portion of the called address prior to sending any call related indication to the media gateway controller. (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address**)

Regarding Claim 63 the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein the media gateway does not send an off-hook signal to the media gateway controller until the media gateway has analyzed at least one digit of the called address, (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address**)

Regarding Claim 64, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein the media gateway controller sends a dial-plan to the media gateway in advance of the media gateway receiving a call from a user, (**Smith, see Col. 4 lines 25-40**)

Regarding Claim 65, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein the media gateway controller indicates to the media gateway which dial-tone the media gateway should apply to the next call for a specific termination. (**Smith, see Fig. 1 & Col. 4 lines 25-40**)

Regarding Claim 66, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as claimed in claim 57, wherein the call gap interval ($\Delta t$) is imposed by the media gateway after the media gateway has analyzed the specific called address, (**Smith, see Col. 4 lines 15-24 i.e., media gateways of Fig. 2, 206a, 206b contain new transactions for processing must analyze the called address**)

Regarding Claim 67, Smith discloses an adaptive overload control system for a communications network, said system comprising:

A plurality of network access points **(see Fig. 2, 206a-206b & Col. 3 line 49 – Col. 4 lines 1-24)**

One or more network access controllers (**see Fig. 4 & Col. 3 line 49 – Col. 4 lines 1-24**)

wherein the amount of traffic offered to the network via the plurality of said network access points is controlled by said one or more network access controllers, thereby enabling said one or more access controllers to externally control the amount of traffic

processed by regulating the rate of said offered traffic, (**Col. 3 line 49 – Col. 4 lines 1-24 e.g., local distributions 206a-b initiates transactions to server 200 which include an overload controller for establishing a video session setup (e.g., traffic) & Col. 5 lines 4-50)**

wherein the network access controller determines if an overload condition exists (**see Col. 4 lines 15-24 & Fig. 4, 410 & Col. 5 lines 4-10**) and if so

generates (**see Col. 5 lines 29-36)** at least one global traffic constraint to restrict the rate at which a network access point admits said traffic to the communications network, (**see Fig. 6, Col. 5 lines 4-15 & Col. 4 lines 15-24**) (**see Col. 13 lines 6-36 e.g., the admission factor or the adapted gap interval can be calculated by the source (e.g., access point) or the server (e.g., controller). Furthermore the source (access point) calculates its new gap interval (e.g., per-line gap interval) based on its input transaction rate λ (e.g., estimate of current rate per line). See Col. 4 lines 61-67 e.g., aggregate offered traffic is determined by controller 500 for determining the reduction rate)**

communicates said at least one global traffic constraint to one or more of said plurality of network access points, (**see Col. 5 lines 4-36)**

(Referring to **Col. 5 lines 4-29**, Smith discloses the controller located in a network server establishes a target incoming workload by computing the offered load of sources (**e.g., aggregate offered traffic rate from plurality of access points**) from measurements of arriving messages.

wherein each respective one of said plurality of network access points which receives said at least one global traffic constraint, processes the received global traffic constraint to determine a plurality of local gap interval constraint conditions for the respective network access point (**see Col. 5 lines 35-36, i.e., update (processing) & Col. 13 lines 6-36**)

determining a local gap interval ($\Delta$t) to be imposed on said traffic received by said respective network access point, (**see Col. 5 lines 4-15 e.g., reduce transaction rate based on traffic rate & Col. 5 lines 35-36, i.e., update (processing) & Col. 13 lines 5-15 e.g., generate a local call gap interval ($\Delta$t)**)

Smith does not expressly disclose determining an initial local gap interval ($\Delta$t0) which differs from the determined local gap interval ($\Delta$t), wherein each initial local gap interval ($\Delta$t0) is determined independently by each respective one of said plurality of network

access points to be between zero and the local gap interval ($\Delta t$), for said respective network access point. However the limitation would be rendered obvious in view of the teachings of Margulis et al. USP (6,243,449).

Referring to Fig. 1, Margulis illustrates a switch 16 is able to apply an initial gap interval which varies in a random manner (***see Fig. 2B, step 130***) between the plurality of switches 16 offering traffic to a network processor 26, (**see Col. 5 line 47 – Col. 6 lines 1-24**)

determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval ($\Delta t$), (**see Col. 6 lines 15-24 e.g., randomizing the first gap time as initial ($\Delta t0$), & Col. 5 lines 55-65 e.g., subsequent gap time ($\Delta t$)**)

wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective one of said plurality of network access points to be between zero and the local gap interval ($\Delta t$), for said respective network access point, (**see Col. 6 lines 14-24 e.g., the switch applies random multiplier between 0 and 1 to the initial gap, subsequently the switch loads the actual gap time to the gap timer, thus initial local gap interval ($\Delta t0$) is determined independently be each switch**)

(**Referring to (Col. 6 lines 17-24), Margulis teaches by randomizing the first gap time in respect of a TN (terminating number) which is subject of gapping, network-wide call bursts at the end of each gap time are avoided (*i.e., avoid synchronized access attempts at the end of gapping period*). Furthermore the initial gap time is standard which is applied prior to receiving traffic for throttling the number of calls to the TN in order to avoid network congestion, see Col. 5 lines 47-55**)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for determining an initial local gap interval ($\Delta t0$) which differs from the determined local gap interval ($\Delta t$), wherein each initial local gap interval ($\Delta t0$) is determined independently by each respective network access point to be between zero and the local gap interval ($\Delta t$), for said respective network access point as disclosed by Margulis within the teachings of Smith, because the teaching lies in Margulis that network-wide call bursts can be avoided at the end of each gap time by randomizing the initial gap interval.

Margulis further discloses in (**Col. 5 lines 55-60**), "*after a network switch receives a call gap message for a TN from the NP, it loads the call gap specified in the message into a call gap timer created for the TN and blocks <u>all calls</u> it receives which are destined to this TN*".

Based on the teachings of Margulis, it is implied that the initial local gap interval ($\Delta t0$) is applied before another call arrives at the switch, however Margulis does not clearly disclose applying said initial local gap interval ($\Delta t0$) before another call arrives at said respective network access point. However the limitation would be rendered obvious in view of the teachings of Snape USP (6,870,922).

Snape discloses applying a call-gap operation before another call arrives at said respective network access point, (**see Fig. 2 & Col. 3 lines 10-16 & lines 16-30 e.g., the more efficient implementation of the present invention thereby causes execution of the call-gap operation in the call control function (CCF) before the call is passed to the service switching function (SSF) (e.g., gap operation applied before call arrives at respective network access point)**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention for implementing the call gap operation of Snape who discloses applying a gap interval before the call is passed to a network access point, as the initial local gap interval ($\Delta t0$) of Smith in view of Margulis, because the teaching lies in Snape that technique is a more efficient implementation of call gapping.

Regarding Claim 68, the combination of Smith in view of Margulis, and further in view of Snape discloses an adaptive overload control system as in claim 67, including a network access controller arranged to received traffic offered by a plurality of network

access points arranged to provide said traffic with access to a communications network, the network access controller further comprising:

a traffic monitor (**Smith, see Fig. 404**), for monitoring the aggregate offered traffic rate comprising the traffic offered by all of said plurality of network access points to said network access controller, (**Smith, see Col. 5 lines 15-20**)

of local constraint conditions by:

a processor arranged to determine from said aggregate traffic rate if an overload condition exists at the network access controller, (**Smith, see Fig. 4 & Col. 4 line 40-67**)

a processor arranged to generating at least one constraint derived from said monitored aggregate offered traffic rate; (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**)

communication means to communicate said at least one constraint to each of said plurality of network access points, (**Smith**, **see Col. 5 lines 29-36)**

Regarding Claim 69, the combination of Smith in view of Margulis, and further in view of Snape discloses an adaptive overload control system as in claim 67, including a network access point arranged to provide a network access controller with an offered traffic rate, and further comprising:

a receiver arranged to received constraint information from the network access controller, (**Smith**, **see Col. 5 lines 29-36 i.e., communicates to source (receives))**

a processor arranged to process said received constraint information to determine one or more local constraints to be imposed on the traffic which limit the traffic offered by said network access point to the network access controller, (**Smith, see Col. 5 lines 35-36, i.e., update (processing)**)

Regarding Claim 70, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as in claim 1, wherein said initial local gap interval ($\Delta t0$) replaces an existing gap interval applied by that respective access point before an existing gap interval timer expires, (**Margulis, see Col. 6 lines 15-24 e.g., randomize gap time replaces initial gap time**)

Regarding Claim 71, the combination of Smith in view of Margulis, and further in view of Snape disclose a method as in claim 57, wherein said initial local gap interval ($\Delta t0$) replaces an existing gap interval applied by that respective gateway before an existing gap interval timer expires, (**Margulis, see Col. 6 lines 15-24 e.g., randomize gap time replaces initial gap time**)

Regarding Claim 72, the combination of Smith in view of Margulis, and further in view of Snape disclose An adaptive overload control system as in claim 67, wherein said initial gap interval ($\Delta t0$) replaces an existing gap interval applied by that respective access point before an existing gap interval timer expires, (**Margulis, see Col. 6 lines 15-24 e.g., randomize gap time replaces initial gap time**)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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